

**DECISION
AND
FINDING OF NO SIGNIFICANT IMPACT
FOR THE AMENDMENT TO THE ENVIRONMENTAL ASSESSMENT:**

**REDUCING DOUBLE-CRESTED CORMORANT DAMAGE
THROUGH AN INTEGRATED WILDLIFE DAMAGE MANAGEMENT
PROGRAM IN THE STATE OF MICHIGAN**

INTRODUCTION

Double-crested cormorants (*Phalacrocorax auritus*; DCCOs) can come into conflict with human activities and desired resource conditions. Conflicts with DCCOs include, but are not limited to, DCCO foraging on fish at aquaculture facilities, DCCO foraging on populations of sport fish, negative impacts of increasing DCCO populations on vegetation and habitat used by other wildlife species, damage to private property from DCCO feces, and risks of aircraft collisions with DCCOs at or near airports. In response to agency concerns, and complaints from the public regarding DCCO damage in Michigan, the United States Department of Agriculture, Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) the United States Department of the Interior, Fish and Wildlife Service (USFWS) prepared an Environmental Assessment (EA) evaluating ways by which the agencies may work together to resolve conflicts with DCCOs in Michigan. The EA documented the need for cormorant damage management (CDM) in Michigan and assessed potential impacts on the human environment from the various alternatives for responding to damage problems in the State of Michigan, including the take of birds under the Double-crested Cormorant Public Resource Depredation Order (PRDO; 50 CFR 21.48). The EA analyzed the potential environmental and social effects of resolving DCCO damage related to natural resources, the protection of property, and the reduction of health and safety risks on private and public lands throughout the State. The EA and associated Decision and Finding of No Significant Impact were completed in May 2004. Based on analyses in the EA, WS and the USFWS selected an Integrated CDM alternative which allowed for the use of non-lethal and lethal CDM methods to reduce damage by DCCOs in Michigan.

The EA anticipated that requests for CDM might increase over time and included an analysis of the impacts of future CDM including the potential removal of up to 3,519 DCCOs per year by WS for the protection of public resources under the PRDO and cumulative annual take by all entities of up to 5,140 DCCOs. Interest in CDM assistance from WS increased beyond the level anticipated in the EA. Consequently, WS and the USFWS prepared an Amendment to the EA which analyzed alternatives for meeting this increased need for actions. The USDI National Park Service (NPS) was also a cooperating agency in the preparation of the EA because of rising concerns regarding DCCO damage to ancient cedars in the Valley of the Giants at Sleeping Bear Dunes National Lakeshore. The Amendment included a new preferred alternative (Alternative 6) which involved use an integrated CDM approach including non-lethal and lethal CDM approaches to address the requests for increased CDM on public and private lands in the State. The alternative included the use of egg-oiling, nest destruction, harassment programs and shooting of DCCOs, which, based on early data, appears to be aiding fish populations in the Les Cheneaux Islands area. In the Amendment, it was estimated that WS' annual lethal take of DCCOs under the PRDO could be up to 9,000 birds and cumulative take of DCCOs by all sources could be up to 10,500 DCCOs per year (13.5% of the 2005 MI DCCO population estimate). The Amendment provides provisions for ensuring that National, Regional, and State DCCO populations would not be jeopardized by the proposed action. This analysis covers current and future CDM actions by WS, the USFWS, and the MDNR, and the Tribes wherever they might be requested or needed within Michigan including Sleeping Bear Dunes National

Lakeshore managed by the NPS. The Amendment provides specifics on locations where CDM actions have been or may be conducted in addition to the Les Cheneaux islands area discussed in the EA.

WS was the lead agency in the preparation of the Amendment, and the USFWS and NPS were cooperating agencies. The MDNR provided assistance with the biological analysis. WS is the Federal program authorized by law to reduce damage caused by wildlife (the Act of March 2, 1931 (46 Stat. 1468; 7 U.S.C. 426-426b) as amended, and the Act of December 22, 1987 (101 Stat. 1329-331, 7 U.S.C. 426c)). Wildlife damage management is the alleviation of damage or other problems caused by, or related to, the presence of wildlife, and is recognized as an integral part of wildlife management (The Wildlife Society 1992). WS responds to requests for assistance from individuals, organizations and agencies experiencing damage caused by wildlife. Ordinarily, according to APHIS procedures implementing the National Environmental Policy Act (NEPA), individual wildlife damage management actions may be categorically excluded (7 CFR 372.5(c), 60 Fed. Reg. 6000-6003, 1995). However, WS and the USFWS decided to prepare the EA and the Amendment to assist in planning CDM activities and to clearly communicate with the public the analysis of cumulative effects for a number of issues of concern in relation to alternative means of meeting needs for such management in the State, including the potential cumulative impacts on DCCOs and other wildlife species. As stated above, this analysis covers current and future CDM actions by WS, the USFWS, the MDNR, and the Tribes wherever they might be requested or needed within the State of Michigan. Comments from the public involvement process were reviewed for substantive issues and to ensure that appropriate alternatives were considered in developing this decision (Appendix A of the Amendment). The EA and the Amendment are tiered to the USFWS Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) on the management of DCCOs in the U.S. (USFWS 2003). WS was a formal cooperating agency on the FEIS and subsequently adopted the FEIS and issued its own Record of Decision (ROD) to support WS' program decisions for its involvement in the management of DCCO damage. As such, many of the issues addressed in the EA have been analyzed in the FEIS.

The IWDM approach, commonly known as Integrated Pest Management (WS Directive 2.105) involves the use of a combination of methods to reduce wildlife damage. WS' wildlife damage management is not based on punishing offending animals but is focused on reducing or preventing damage and is implemented by using a thought process described by the WS Decision Model (Slate et al. 1992, USDA 1997 revised, WS Directive 2.201). Resource management agencies, organizations, associations, groups, and individuals have requested assistance with CDM to protect private property and natural resources and to reduce risks to human health and safety in Michigan. All wildlife damage management activities will be conducted in compliance with relevant laws, regulations, policies, orders and procedures.

Public comments and subsequent analysis provided beneficial information for the analysis. The agencies' responses to comments are provided in Appendix A of the final Amendment. However, we feel that several issues raised in the public comments are of particular importance. First, as interest in CDM to protect fishery resources has increased, it has become increasingly important that all entities that have authority under the PRDO consult with one another and coordinate their activities. Consequently, WS, the USFWS, the MDNR, and affected Tribes will be developing an informal Interagency Cormorant Group (ICG) to review available data and discuss and coordinate proposed CDM activities. The agencies comprising the new ICG will work cooperatively on DCCO management issues in Michigan. However, each agency will retain its own authority to make management decisions. The group will review DCCO population data, impacts of proposed CDM actions in Michigan individually and collectively, and information on regional and national CDM activities to ensure that CDM efforts in Michigan will not jeopardize the viability of State, regional or national DCCO populations. The USFWS, WS and MDNR have agreed that decisions on future PRDO CDM projects will be made only after consulting with the ICG.

Second, as discussed in the Amendment (Section 1.1.3), the agencies acknowledge that the available research currently provides differing opinions on the impact of DCCOs on smallmouth bass in the Beaver Islands archipelago. Commenters also expressed concerns regarding DCCO impacts on other fishery, wildlife, and vegetation resources in the Beaver Islands archipelago. This issue is further addressed in Appendix A, Response 19. As stated in the Amendment, CDM will not be conducted under the PRDO in the Beaver Islands archipelago in 2006. The agencies will continue to review available data and investigate concerns regarding DCCO damage. However, CDM will not be initiated in the archipelago until it is recommended by the MDNR and the CCG has consulted on the issue.

Finally, the agencies have revised the 2006 management plan for the Bays de Noc area. Damage management efforts in 2006 will consist of non-lethal methods, egg oiling and the removal of no more than 10% of the breeding DCCO population on Snake and Fisherman (also known as Round) Islands (970 DCCOs). This is down from an initial proposal which included lethal removal of up to 33% of the breeding DCCOs in Bays de Noc in 2006 or approximately 3,200 DCCOs. The agencies will continue to review available data on fish and DCCO populations in the area and the results of ongoing DCCO research in other areas. Additional removal of adults beyond that proposed for 2006 will not be conducted unless it has been recommended by the MDNR and the ICG has consulted on the issue.

COOPERATING AGENCIES

United States Fish and Wildlife Service Migratory Bird Management Office (USFWS): The USFWS was a cooperating agency on this EA Amendment. The USFWS has the primary statutory authority, under the Migratory Bird Treaty Act, for managing migratory bird populations in the U.S. In response to persistent conflicts and complaints relating to DCCOs, the USFWS in cooperation with WS completed the FEIS on the management of DCCOs in the U.S. in 2003 (USFWS 2003). Included in the selected management alternative were two depredation orders to address DCCO damage. Only one of these - the Public Resource Depredation Order (PRDO) - applies to Michigan. The purpose of the PRDO is to reduce the actual occurrence, and/or minimize the risk, of adverse impacts of DCCOs to public resources. Public resources include fish (both free-swimming fish and stock at Federal, State, and Tribal hatcheries that are intended for release in public waters), wildlife, plants, and their habitats. It authorizes WS, State fish and wildlife agencies, and Federally-recognized Tribes (acting only on tribal lands) to control DCCOs without a Federal permit, in 24 States (AL, AR, FL, GA, IL, IN, IA, KS, KY, LA, MI, MN, MS, MO, NY, NC, OH, OK, SC, TN, TX, VT, WV, and WI). It authorizes control on "all lands and freshwaters." This includes private lands, but landowner permission is required. It protects "public resources," which are natural resources managed and conserved by public agencies, as opposed to private individuals.

The USFWS is responsible for ensuring that the actions of agencies authorized to act under the PRDO (1) do not threaten the long-term sustainability of regional DCCO populations, (2) do not adversely affect other bird species that nest with DCCOs, (3) do not adversely affect Federally-listed species, and (4) comply with the terms and conditions of the PRDO, including notification and reporting procedures.

The USFWS issues two kinds of Migratory Bird Permits that allow the take of DCCOs. Depredation permits can be used to address loss of private property (including private hatchery stock) and protection of human health and safety. Scientific collecting permits can be used to take birds for scientific research, such as assessments of DCCO food habits.

United States Department of the Interior, National Park Service (NPS). The NPS is responsible for management of Sleeping Bear Dunes National Lakeshore, including South Manitou Island, the Morazon shipwreck and the North Manitou Island Shoals Coast Guard Lighthouse, all of which host nesting DCCOs.

The Organic Act creating the NPS states the agency will “conserve the scenery and the natural and historic objects and the wildlife therein and... provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (16 U.S.C. 1).

The Management Policies 2001 for the NPS state in Section 4.4.2, Management of Native Plants and Animals, “Whenever possible, natural processes will be relied upon to maintain native plant and animal species, and to influence natural fluctuations in populations of these species. The NPS may intervene to manage individuals or populations of native species only when such intervention will not cause unacceptable impacts to the populations of the species and when at least one of the following conditions exists:

- A population occurs in an unnaturally high or low concentration as a result of human influences and it is not possible to mitigate the effects of the human influences;
- There is a need to protect rare, threatened, or endangered species; etc.

MONITORING

WS, the MDNR and the USFWS will monitor the impacts of their activities on DCCOs and non-target species that could be affected by CDM activities. The USFWS will annually assess the impacts of the PRDO and DCCO depredation and scientific collecting permits to ensure that cumulative CDM activities do not adversely impact the long-term sustainability of regional DCCO populations and that they are having minimal impacts on non-target wildlife species. This will be based on review of USFWS permit records and annual reports submitted by agencies and individuals authorized to take DCCOs under the PRDO combined with periodic population monitoring efforts. In addition, the amended EA will be reviewed each year to ensure that there are no new needs, issues or impacts meriting additional analysis.

PUBLIC INVOLVEMENT

The draft EA Amendment was prepared and released to the public for a 30-day comment period via a legal notice placed on January 10, 2006 in two of Michigan’s major newspapers; The Detroit News and the Detroit Free Press. A notification regarding the availability of the Amendment for public comment was also mailed directly to agencies, organizations, and individuals with probable interest in the proposed program. The USFWS Midwest Regional Office issued a press release to all news media in Michigan and provided a copy of the draft EA on their website (<http://www.fws.gov/midwest/MICormorantNEPA>). Ten comment letters were received, 8 supporting the proposed action and 2 opposed. All comments were analyzed to identify substantial new issues, alternatives, or to redirect the program. Responses to specific comments are included as an appendix to the Amendment. All letters and comments are maintained at the Wildlife Services State Office in Okemos, Michigan.

MAJOR ISSUES

The EA Amendment describes the alternatives considered and evaluated using the identified issues. The following issues were identified as important to the scope of the analysis (40 CFR 1508.25). The EA analyzed the impacts of each CDM alternative on these issues.

- Effects on DCCO populations
- Effects on other wildlife (and plant) species, including T&E species
- Effects on human health and safety
- Effects on aesthetic values
- Humaneness and animal welfare concerns of the methods used

AFFECTED ENVIRONMENT

The proposed action may be conducted on properties held in private, local, state or federal ownership. The areas of the proposed action could include areas in and around public and private facilities and properties and at other sites where cormorants may roost, loaf, feed, nest or otherwise occur. Examples of areas where CDM activities could be conducted include, but are not necessarily limited to: aquaculture facilities; fish hatcheries; lakes; ponds; rivers; swamps; marshes; islands; communally-owned homeowner/property owner association properties; boat marinas; natural areas; wildlife refuges; wildlife management areas; and airports and surrounding areas. WS may conduct breeding bird control activities in any DCCO breeding colony site in Michigan, including any of the breeding sites currently identified throughout the state (USDI/USGS 2001, Weseloh et al. 2005), with landowner permission. This may include sites within the Les Cheneaux Islands and Thunder Bay regions of Lake Huron and Bays du Noc area of Lake Michigan as well as other nesting locations identified by Wires and Cuthbert (2001) as high priority for the conservation of colonial waterbirds in the U.S. Great Lakes. WS will consult the USFWS before undertaking CDM activities at the high-priority sites.

ALTERNATIVES THAT WERE FULLY EVALUATED

The following six alternatives were developed to respond to the issues. Alternatives 1-5 were evaluated in the original EA. Alternative 6 is a new alternative analyzed in the Amendment. WS and the USFWS will make their own decisions regarding the alternative to be selected. The following is a summary of the alternatives.

Alternative 1. Integrated CDM Program, including implementation of the Public Resource Depredation Order (Current Action/No Action Alternative). WS and the USFWS propose to implement a CDM program in Michigan, including the implementation of the PRDO (50 CFR 21.48) as promulgated by the USFWS. An IWDM approach would be implemented to reduce cormorant damage and conflicts to aquaculture, property, natural resources, and human health and safety. Damage management would be conducted by WS on public and private property in Michigan when a request is received and landowner permission is granted. An IWDM strategy would be recommended and used, encompassing practical and effective methods of preventing or reducing damage while minimizing harmful effects of damage management measures on humans, target and non-target species, and the environment. Under this action, WS could provide technical assistance and direct operational damage management, including non-lethal and lethal management methods by applying the WS Decision Model (Slate et al. 1992). When appropriate, physical exclusion, empty nest destruction, habitat modification, or harassment would be recommended and utilized to reduce damage. In other situations, birds would be humanely removed through use of shooting, egg oiling/destruction, or euthanasia following live capture. In determining the damage management strategy, preference would be given to practical and effective non-lethal methods. However, non-lethal methods may not always be applied as a first response to each damage problem. The most appropriate response could often be a combination of non-lethal and lethal methods, or there could be instances where the application of lethal methods alone would be the most appropriate strategy. Under this alternative, up to 4,140 DCCOs could be taken per year for the protection of public resources under the PRDO (3,519 DCCOs per year by WS, 621 per year by the State

and Tribes). Cumulative annual take of DCCOs under the PRDO, Migratory Bird Depredation Permits and Scientific Collecting Permits would not exceed 5,140 DCCOs per year. Wildlife damage management activities would be conducted in the State, when requested and funded, on private or public property, after an *Agreement for Control* or other comparable document has been completed. WS will acquire the necessary landowner permission prior to conducting CDM activities. All management activities would comply with appropriate Federal, State, and local laws, including applicable laws and regulations authorizing take of double-crested cormorants, and their nests and eggs. The USFWS would be responsible for ensuring compliance with the PRDO regulations at 50 CFR 21.48, issuing migratory bird permits, and ensuring that the long-term sustainability of regional cormorant populations is not threatened.

Alternative 2. Non-lethal CDM Only By WS. Under this alternative, WS would be restricted to implementing or recommending only non-lethal methods in providing assistance with cormorant damage problems. Entities requesting CDM assistance for damage concerns would only be provided information on non-lethal methods such as physical exclusion, habitat modification, empty nest destruction, or harassment. However, it is possible that persons receiving WS' non-lethal technical and direct control assistance could still resort to lethal methods that were available to them. Information on lethal CDM methods would not be available from WS but would still be available through sources such as USDA Agricultural Extension Service offices, USFWS, MDNR, universities, or pest control organizations. However, WS' participation in the consultations needed for the USFWS to issue depredation permits would be prohibited under this alternative, so the USFWS would not issue depredation permits for CDM.

Alternative 3. Technical Assistance Only. This alternative would not allow for WS operational CDM in Michigan. WS would only provide technical assistance and make recommendations when requested. Aquaculture producers, property owners, agency personnel, or others could conduct CDM using any non-lethal or lethal method that is legally available to them. WS would not take part in the implementation of the PRDO. WS could conduct the consultations required by the USFWS for the issuance of depredation permits, so lethal CDM methods could be used by entities other than WS.

Alternative 4. No WS CDM. This alternative would eliminate WS involvement in CDM in Michigan. WS would not provide direct operational or technical assistance and requesters of WS services would have to conduct their own CDM without WS input. Information on CDM methods would still be available through other sources such as USDA Agricultural Extension Service offices, USFWS, MDNR, universities, or pest control organizations. Wildlife Service's participation in the consultations needed for the USFWS to issue depredation permits would be prohibited under this alternative, so the USFWS would not issue depredation permits for CDM.

Alternative 5. Integrated CDM Program, excluding WS implementation of the PRDO. This alternative would be similar to Alternative 1, with the exception that WS will not take part in the implementation of the PRDO. More specifically, WS would not kill DCCOs or conduct egg oiling/destruction to protect public resources (fish, wildlife, plants, and their habitats) on private and public lands and freshwaters under the authority provided to WS by 50 CFR 21.48. The MDNR and Tribes would be able to implement the PRDO; and the USFWS would continue to issue migratory bird permits to take DCCOs and their eggs. WS would still be able to seek Migratory Bird Depredation Permits to reduce cormorant damage and conflicts to aquaculture, property, natural resources, and human health and safety. Damage management (including the use of lethal and non-lethal methods) would be conducted by WS on public and private property in Michigan when a request is received and landowner permission is granted. Under this action, WS could provide technical assistance and direct operational damage management, including non-lethal and lethal management methods by applying the WS Decision Model (Slate et al. 1992). On South Manitou Island where the purpose of the proposed action is to

protect the ancient cedars at Valley of the Giants, it may be possible for WS or the NPS to obtain and work under a Migratory Bird Depredation Permit, or the NPS may be able to request assistance under the PRDO from the State or Tribes¹.

Alternative 6. Expanded Integrated CDM (Preferred Alternative)

This alternative is identical to Alternative 1 except that combined annual DCCO take of all action agencies under the PRDO could be as high as 9,700 DCCOs per year (9,000 DCCOs per year by WS, 700 DCCOs per year by State and Tribes). Total cumulative DCCO take for all causes and by all agencies, organizations, and individuals could be up to 10,500 DCCOs per year. In addition to sites where WS has worked since 2004, sites where WS would conduct CDM under the PRDO in the future could include, but are not limited to, DCCO colonies in Thunder Bay in Alpena County, Big and Little Bays de Noc in Delta County, and South Manitou Island within the Sleeping Bear Dunes National Lakeshore in Leelenau County. (See Changes to proposed action discussed in Introduction above).

DECISION AND RATIONALE

I have carefully reviewed the Amendment prepared for this proposal and the input from the public involvement process. I believe that the issues identified in the Amendment are best addressed by selecting Alternative 6 – Expanded Integrated CDM, including implementation of the PRDO (Preferred Alternative) and applying the associated standard operating procedures discussed in Chapter 3 of the EA. Alternative 6 is selected because (1) it offers the greatest chance at maximizing effectiveness and providing benefits to resource owners and managers while minimizing cumulative impacts on the quality of the human environment that might result from the program's effect on target and non-target species populations; (2) it presents the greatest chance of maximizing net benefits to public health and safety while minimizing adverse impacts to target and non-target species populations; and (3) it offers a balanced approach to the issues of humaneness and aesthetics when all facets of these issues are considered. The comments identified from public involvement were considered and, where appropriate, changes were made to the Amendment. The revisions that were made did not substantially change the analysis. Therefore, it is my decision to implement Alternative 6 to address damage by DCCOs in Michigan.

FINDING OF NO SIGNIFICANT IMPACT

Many of the issues analyzed in the EA Amendment were also analyzed in the FEIS (USFWS 2003). The analyses in the Amendment and EA indicate that there will not be a significant impact, individually or cumulatively, on the quality of the human environment as a result of actions proposed in the EA. I agree with this conclusion and therefore find that an EIS need not be prepared. This determination is based on the following factors:


1. Cormorant damage management as conducted by WS and the other action agencies in Michigan is not regional or national in scope. The impacts of cormorant management that are regional or national in scope have been addressed and analyzed in the FEIS.

¹ The PRDO limits tribal authority as an action agency to tribal lands and, where applicable and where landowner approval is obtained, to lands within the ceded territories. On all other land classes, tribes would have to work as agents of WS or the MDNR.

2. The proposed action would pose minimal risk to public health and safety. Risks to the public from WS methods were determined to be low in a formal risk assessment (USDA 1997, Appendix P).
3. There are no unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected. Built-in mitigation measures that are part of the action agencies' standard operating procedures and adherence to laws and regulations will further ensure that the agencies' activities do not harm the environment.
4. The effects on the quality of the human environment are not highly controversial. Although there is some opposition to CDM, this action is not highly controversial in terms of size, nature, or effect. Public controversy over cormorant management has been acknowledged and addressed in the FEIS and the EA.
5. Based on the analysis documented in the EA and Amendment and the accompanying administrative file, the effects of the proposed damage management program on the human environment would not be significant. The effects of the proposed activities are not highly uncertain and do not involve unique or unknown risks. The issue of uncertainty about effects of DCCO management in general has also been addressed in the FEIS.
6. The preferred alternative would not establish a precedent for any future action with significant effects.
7. No significant cumulative effects were identified through this assessment. The EA and Amendment discussed cumulative effects on target and non-target species populations and concluded that such impacts were not significant for this or other anticipated actions to be implemented or planned within the State. The FEIS analyzed the potential for significant cumulative impacts on national and regional DCCO populations and other species from implementing CDM activities and has determined that such impacts would not be significant.
8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historical resources. If an individual activity with the potential to affect historic resources is planned under the selected alternative, then site-specific consultation as required by Section 106 of the NHPA would be conducted as necessary (Section 1.9.2 of EA).
9. The USFWS has determined that the proposed program would have no effect on or is not likely to adversely affect any federally-listed threatened or endangered species. This determination is based upon Intra-Service Section 7 Biological Evaluations completed by the USFWS for the FEIS and this EA. WS and the other action agencies will abide by the conservation measures provided in 50 CFR 21.48(d)(8) and the Intra-Service Section 7 Biological Evaluation for CDM in Michigan to avoid adverse impacts to bald eagles and piping plovers in Michigan. In addition, WS and the MDNR have determined that the proposed program will not adversely affect any Michigan state-listed threatened or endangered species.
10. The proposed action would be in compliance with all Federal, State, and local laws.

Copies of the EA and Amendment are available upon request from the USDA Wildlife Services Office, 2803 Jolly Road – Suite 100, Okemos, MI 48864, Phone (517) 336-1928, FAX (517) 336-1934, and on

the USFWS Regional Office website at: <http://www.fws.gov/midwest/MidwestBird/cormorants.htm>, or from the U.S. Fish and Wildlife Service, Division of Migratory Birds, 1 Federal Drive, Fort Snelling, MN 55111-4056.


for Charles S. Brown, Regional Director
USDA-APHIS-WS, Eastern Region

8/16/06
Date

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